

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for transcoding an audio/video (A/V) stream, the method comprising:

dividing a compressed digital A/V stream into audio and video data;
transcoding the divided video data;
synchronizing the divided audio data with the transcoded video data by matching Presentation Time Stamps (PTSSs) of the audio and video data; and
packetizing the synchronized audio and video data into a digital A/V stream.

2. (Original) The method according to claim 1, wherein the transcoding comprises reducing a bit rate of the video data.

3. (Original) The method according to claim 2, wherein the bit rate of the video data is reduced by reducing at least one of a frame size, a frame quality and a frame rate of the video data.

4. (Original) The method according to claim 1, wherein the digital A/V stream is compressed based on an MPEG standard.

5. (Cancelled)

6. (Currently Amended) The method according to ~~claim 5~~claim 1, wherein original PTSs of video data before the video data is transcoded are used for the transcoded video data.

7. (Currently Amended) The method according to ~~claim 1~~claim 5, wherein new PTSs are used for the transcoded video data, and PTSs of the audio data are updated based on the new PTSs.

8. (Currently Amended) The method according to claim 7, wherein a start PTS value of the PTSs of the audio data is replaced with a start PTS value of the new PTSs of the transcoded video data, and ~~the other~~other PTS values of the PTSs of the audio data are updated based ~~on~~on a difference between the start PTS value of the new PTSs of the transcoded video data and the start PTS value of the PTSs of the audio data.

9. (Currently Amended) The method according to ~~claim 7 or 8~~claim 8, wherein the steps of transcoding ~~and the~~and synchronizing are performed on a section-by-section basis, each section having continuous PTS values.

10. (Currently Amended) The method according to claim 1, further comprising:
temporarily storing the divided audio data before synchronizing the divided audio data with the transcoded video data.

11. (Currently Amended) The method according to claim 10, wherein ~~the size~~ a size of a buffer for temporarily storing the audio data is determined based on both a time required to transcode the video data and a bit rate of the audio data.

12. (Currently Amended) The method according to claim 1, further comprising:
recording the packetized digital A/V stream in a recording medium.

13. (Currently Amended) The method according to claim 1, further comprising:
transmitting the packetized digital A/V stream.

14. (Currently Amended) The method according to claim 1, ~~wherein~~ further comprising:
~~receiving~~ the compressed digital A/V stream ~~is received~~ via a digital broadcast or via an
input through a multimedia player.

15. (Currently Amended) An apparatus for transcoding a digital audio/video (A/V) stream, the apparatus comprising:

a demultiplexer ~~for dividing~~ configured to divide a compressed digital A/V stream into audio and video data;

a buffer ~~for temporarily storing~~ configured to temporarily store the divided audio data;

a transcoder ~~for transcoding~~ configured to transcode the divided video data;

a synchronizer ~~for synchronizing~~ configured to synchronize the divided audio data with the transcoded video data ~~by matching Presentation Time Stamps (PTSSs) of the audio and video data~~; and

a packetizer ~~for packetizing~~ configured to packetize the synchronized audio and video data into a digital A/V stream.

16. (Currently Amended) The apparatus according to claim 15, wherein the ~~transcoding comprises reducing~~ ~~transcoder is configured to reduce~~ a bit rate of the video data, ~~and the bit rate of the video data is reduced~~ by reducing at least one of a frame size, a frame quality and a frame rate of the video data.

17. (Currently Amended) The apparatus according to claim 15, wherein original PTSSs of the video data before the video data is transcoded are ~~used for the transcoded video data arranged~~ to synchronize the divided audio data with the transcoded video data.

18. (Currently Amended) The apparatus according to claim 15, wherein new PTSSs are used for the transcoded video data, and PTSSs of the divided audio data are updated based on the new PTSSs ~~so as to~~ synchronize the divided audio data with the transcoded video data, and

wherein the ~~transcoder and synchronizer are adapted so that~~ transcoding and the synchronizing are performed on a section-by-section basis, each section having continuous PTS values.

19. (Currently Amended) The apparatus according to claim 18, wherein a start PTS value of the PTSs of the audio data is replaced with a start PTS value of the new PTSs of the transcoded video data, and ~~the other~~other PTS values of the PTSs of the audio data are updated based on the difference between the start PTS value of the new PTSs of the transcoded video data and the start PTS value of the PTSs of the audio data.

20. (Currently Amended) The apparatus according to claim 15, wherein ~~the size of a buffer is determined~~a size of the buffer is set based on both a time required to transcode the video data and a bit rate of the audio data.

21. (Currently Amended) The apparatus according to claim 15, further comprising:
a digital broadcast receiver ~~for receiving~~configured to receive the compressed digital A/V stream via a digital broadcast; and
a recorder ~~for recording~~configured to record the packetized digital A/V stream in a recording medium.

22. (Currently Amended) The apparatus according to claim 15, further comprising:
a transmitter ~~for transmitting~~configured to transmit the packetized digital A/V stream to a client computer through a communication network.